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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

6 JUL 1993

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IN REPLY REFER TO:
7330-07/1700A3

92-235

Honorable Max Baucus
United States Senate
711 Hart Senate Office Building
Washington, D.C. 20510

RECEIVED

JUL - 7 1993

Dear Senator Baucus:

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

This is in reply to your letter of June 17, 1993, regarding the Notice of Proposed Rule Making (Notice) in PR Docket No. 92-235, 57 FR 54034 (1992).

This Notice proposes comprehensive changes to the Commission's Rules governing the private land mobile radio services operating in the frequency bands below 512 MHz. You expressed your concerns and those of Governor Racicot about the impact of upgrading existing systems on state and local government and other two-way radio systems located in rural areas.

The primary purpose of the Notice was to foster emerging mobile telecommunications technologies that can help resolve spectrum congestion. While congestion is most pronounced in urban environments, the evidence suggests that pockets exist in even the most rural states. We are, however, fully aware of the varying needs of users of private land mobile radio spectrum, including state and local governments and those in rural areas. To this end, Commission staff has had numerous meetings with representatives of various groups representing mobile radio users. These discussions have been fruitful and should lead to final rules that achieve the important goals of the Notice while minimizing costs to all users.

Thank you for your interest in this proceeding. Your concerns will be included in the record of this proceeding and will be considered in developing final rules.

Sincerely,



Richard J. Shiben
Chief, Land Mobile and
Microwave Division

cc:

CNTL NO - 9302557

Chief, PR Bureau
Chief, LM&M Division
Docket Files, Room 222
P&P Branch Files

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BAUCUS
MONTANA

United States Senate

WASHINGTON, DC 20510-2602

June 17, 1993

PRB
92-235
WASHINGTON, DC
(202) 224-2651
MONTANA TOLL FREE NUMBER
1-800-332-6106

2557

Ms. Linda Townsend Solheim
Director, Legislative Affairs
Federal Communications Commission
1919 M Street, N.W.
Room 808
Washington, D.C. 20554

Dear Ms. Solheim:

I am writing to you today to express my concern over the Notice of Proposed Rule Making Docket 92-235. I am enclosing a letter and statement that I received from Governor Racicot which outlines the concerns and suggestions that large and mostly rural states like Montana have with this docket.

I believe that a compromise can be reached in this situation and I urge you to seriously consider the information in the enclosed letter and statement as this issue is considered and before final regulations are determined.

OFFICE OF THE GOVERNOR 93 MAY 17 PM 3:51
STATE OF MONTANA

MARC RACICOT
GOVERNOR



STATE CAPITOL
HELENA, MONTANA 59620-0801

May 12, 1993

Senator Max Baucus
United States Senate
511 Hart Senate Office Building
Washington D.C. 20510

Dear Senator Baucus:

I understand from my staff that you are familiar with the FCC's Notice of Proposed Rule Making No. 92-235, commonly known as the "refarming docket". As you might imagine, I am concerned about the impact these proposed rules would have on the State and local government budgets. We have submitted the enclosed formal comments to the FCC on the proceeding and I wish to alert you to the position we have taken.

Our analysis indicates the proposed rules would cost the State and its political subdivisions approximately \$25 million to comply by January 1, 1996. Between then and the year 2012, we would be required to replace all our existing radio systems with technology not even commonly available today. Those costs are nearly impossible to estimate, but would likely be several times what we may face in the next few years.

The FCC seeks to increase the capacity of the radio frequency spectrum by mandating more efficient use. While we support the efficient use of public resources, frequency allocation is hardly

1 BEFORE THE
2 FEDERAL COMMUNICATIONS COMMISSION
3 WASHINGTON, D.C. 20544
4 PR Docket No. 92-235
5

6 In the Matter of
7 Replacement of Part 90 by
8 Part 88 to Revise the Private
9 Land Mobile Radio Services and
10 Modify the Policies Governing
11 Them

12 To: The Commission

13 COMMENTS OF THE STATE OF MONTANA
14

15 The State of Montana hereby submits the following comments in
16 response to the above-captioned Notice of Proposed Rule Making.
17 The proposed rules would require significant change by all private
18 land mobile radio users of frequencies between 150 and 512 MHz. As
19 one such user, the State of Montana opposes certain provisions of
20 the new rules, supports others, and wishes to recommend
21 alternatives in keeping with the Commission's stated goals in this
22 action.

23 The State of Montana is a licensee of frequencies in the
24 Special Emergency and all Public Safety radio services. It
25 operates three large radio networks in the Police, Highway
26 Maintenance, and Forestry Conservation services, plus additional
27 small systems. Its systems are comprised of 128 mobile relays, 100
28 fixed bases and control stations, 54 operationally fixed stations,
and over 4,000 mobile units. Practically all operations are within
the 150-512 MHz band.

1 Considered as a single area of operations, Montana is
2 geographically large and sparsely populated. Its population of
3 800,000 is spread over 147,000 square miles of terrain ranging from
4 heavily forested mountains to sprawling plains. Radio system
5 design for this vast amount of variable terrain requires careful
6 planning and an intimate knowledge of its topography.

7 Immediate Effects of the Proposed Rules

8 The State of Montana acknowledges and supports the
9 Commission's goals in this Proposed Rule Making: To increase
10 channel capacity in this premium radio spectrum; to promote more
11 efficient spectrum use; and to simplify existing policies governing
12 land mobile radio. However, it cannot support the Commission's
13 proposed new technical and operational standards which would place
14 an onerous burden upon it and its political subdivisions.

15 The proposed rules lay-out a two-phase program for conversion
16 of all land mobile radio between 150 and 512 MHz to narrowband
17 channels; ultimately requiring total replacement of all equipment
18 currently in use. The first phase is of immediate and direct
19 interest to us due to its financial impact with minimal return.
20 The second phase would end with a deadline of January 1, 2012 for
21 Montana and is far enough in the future to allow us to amortize
22 existing investments, plan for true narrowband technology, and
23 evaluate technologies as they become available. In contrast the
24 first phase, with a deadline of January 1, 1996, would require a
25 tremendous investment as explained below in exchange for relief of
26 the minimal frequency congestion we experience.

27 Based on conservative figures, the State of Montana estimates
28 it would be required to expend \$10.9 million to comply with the

1 Commission's phase one proposal by 1996. In addition, operational
2 costs would increase by an estimated \$1.3 million annually. The
3 State's political subdivisions would be required to expend an
4 almost equal amount, imposing a total compliance cost of nearly \$25

1 | available.

2 | Beyond the prohibitive costs of accommodating new power
3 | limitations, the State of Montana is convinced that transmitter
4 | deviation reductions will, as proposed, limit the range of existing
5 | systems, reduce audio power output, and jeopardize paging systems
6 | used widely by public safety in the state. These relatively
7 | inexpensive transmitter modifications would affect system
8 | performance adversely; requiring additional fixed infrastructure
9 | and new equipment optimized for narrower channels.

10 | The State of Montana is further concerned that 5 kHz
11 | channelization in the VHF band will inevitably lead to
12 | incompatibilities with the Federal government and its 12.5/6.25 kHz
13 | plan and will encourage adoption of different technologies between
14 | the 150, 450, and 800 MHz bands. Such differences will complicate
15 | wide-area systems where the propagation characteristics of one band
16 | are sought for forested terrain, for example, and those of another
17 | for urbanized areas.

18 | State of Montana Recommendations

19 | 1. We recommend Part 88 be modified to eliminate ERP/HAAT
20 | limitations for public safety and add strict service area coverage
21 | limits as have been adopted by most NPSPAC 800 MHz regions. We
22 | support the Commission's efforts to make efficient use of the radio
23 | spectrum and recognize that narrower band technology is in our
24 | future. Computer technology is widely available which allows
25 | transmitter coverage estimations and encourages conservative design
26 | practices. We suggest the Commission adopt recognized propagation
27 | models for land mobile radio such as the Modified Egli or Longley-
28 | Rice methods, rather than broadcast radio methods which fail to

1 account for the mobile environment. While computer models are
2 valuable for estimates, field studies must be allowed to take
3 precedence over estimates.

4 2. We recommend the Commission abandon its two-stage transition
5 plan to narrow band. Given that its true goal is 5 and 6.25 kHz
6 channels and that the first step toward that goal is prohibitively
7 expensive with little return for rural, wide-area systems, the
8 transition from today's wide-band FM to more efficient ACSB, spread
9 spectrum, or digital technologies is best done directly, without
10 expensive interim requirements. For an estimated cost of \$25
11 million by 1996, Montana public safety agencies would receive no
12 operational benefits, little spectrum relief, and more complicated
13 radio systems.

14 3. We recommend a single-stage transition to narrowband
15 technology with a schedule as outlined in §88.433. Between now
16 and January 1, 2012, the State of Montana will be able to amortize
17 its investments and plan for the next generation of land mobile
18 radio.

19 4. We recommend interoperability between federal, state, and
20 local public safety agencies be given paramount consideration.
21 Eventual adoption of 6.25 kHz channels from 150 to 512 MHz will
22 help prevent conflicts between technologies of different bands,
23 incompatibilities with the Federal government, and abandonment of

1 inasmuch as they affect Montana, as an attempt to establish a
2 natural resource economy for the radio spectrum. Exclusive use
3 overlay (EUO) would have little impact on most Montana public
4 safety users, as they are generally exclusive users today. It
5 would offer them future guarantees in that regard, in exchange for
6 certain application burdens and is seen as a positive step.

7 6. Finally, we recommend the Commission adopt a method by which
8 regional public safety plans can be developed and given the force
9 of law as has worked so well in NPSPAC 800 MHz allocations
10 nationwide.

11 Summary

12 The State of Montana supports the stated goals of the named
13 proposal. As they stand today, we oppose its technical and
14 operational standards as unworkable for large, rural systems and
15 financially burdensome for our state and its political
16 subdivisions. We recommend replacement of the ERP and HAAT limits
17 with more applicable service area coverage limits and adoption of
18 recognized models for their measurement. We recommend a direct
19 transition to narrow band technology without an expensive interim
20 step. We hope to see further use of regional public safety plans.

21 In consideration of our position and those of other states,
22 counties, and cities, we ask that the Commission mind our needs for
23 land mobile radio and reaffirm its commitment to the primacy of
24 public safety.

25

26

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28

1 Respectfully submitted,

2 STATE OF MONTANA
3 Department of Administration

4 By: Lois Menzies
5 Lois Menzies
6 Director
7 Capitol Station
8 Helena MT 59620
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